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ABSTRACT

Project Success Controlled Optimal Reading Experience (SCORE) is a sequential phonics program designed to teach students of any age who are deficient in basic word attack skills or who are reading below the fourth grade level. Performance objectives of the program include student mastery of sound blending, short and long vowels, blends, diphthongs, and 65% of the basic sight words. This information packet contains the following information concerning Project SCORE: (1) an explanation of how the project meets concerns about school improvement programs and proficiency standards, (2) a description of the project and of the evaluation procedures, and (3) a list of schools that have adopted the project. (FL)

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PROJECT SCORE*
A TUTORIAL READING SYSTEM FOR THE LEARNING HANDICAPPED STUDENT

SOUTH SAN FRANCISCO
UNIFIED SCHOOL DISTRICT
SOUTH SAN FRANCISCO, CALIFORNIA

A SUBMISSION TO THE
JOINT DISSEMINATION REVIEW PANEL **
U.S. DEPARTMENT OF EDUCATION

JOHN D. CRADLER - DIRECTOR

5 November 1980

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*Success Controlled Optimal Reading Experience
**Evaluation assistance provided by Dwight Goodwin, San Jose State University; Terry Applegate, University of Utah, and Paul Lorton, Stanford University.

SCORE: A TUTORIAL READING SYSTEM FOR THE LEARNING HANDICAPPED STUDENT

A report on the recent research and Federal funding for Project SCORE

Purpose and Level of ESEA Title IV-C Funding:

Year	Purpose	Amount
1975-76	Development and Validation	$ 43,479
1976-77	Development and Validation	43,665
1977-78	Validation	43,103
1978-79	Dissemination in California	56,000
1979-80	Dissemination in California	58,500
1980-81	Dissemination in California	73,200
1979-81	Funded adoptions in 28 districts	207,079
1975-81	Total Title IV-C funding	$525,026

Years of Intervention Development: 1974-75: development, pilot testing, and revision of SCORE Tutorial materials. 1976-78: development of Implementation Guide and evaluation of SCORE Tutorial Program. 1978-present: California dissemination and evaluation of impact at adoption sites.

Purpose and Objectives: Success Controlled Optimal Reading Experience (SCORE) is a sequential phonics program designed to be taught by paraprofessionals, tutors, parents or anyone who can easily read above a fifth grade level. SCORE is designed to teach Learning Handicapped pupils of any age who are deficient in basic word attack skills and/or who are reading below the fourth grade level (Cradler, Bechthold & Bechthold 1973).

The general student performance objectives of the program are to systematically teach mastery of: (1) sound blending, (2) short vowels, (3) long vowels, (4) blends, (5) diphthongs, (6) two and three syllable words, (7) all other phonetic categories and variants, and (8) 65% of the basic sight words. Additional objectives include: (1) increased student motivation to read, (2) improved attention span, (3) decrease in reversal errors, and (4) improved self-confidence in reading situations.

Rationale: In every way possible, the findings of sound educational research were the guiding factors in the development of SCORE. The SCORE teaching strategy is based on a mastery teaching model refined and validated by Block (1971) and Bloom (1971). SCORE incorporates mastery teaching strategies with: (1) skills arranged in a hierarchical psycholinguistic sequence with well-outlined learning units, (2) complete mastery of each unit before going on to the next unit, (3) ongoing imbedded testing with predetermined criteria to signal when to advance or recycle the pupil, and (4) alternate learning routes determined by the student's responses to any given lesson. Student mastery of pre-set performance levels automatically signals the tutor to execute over 3,000 possible instructional decisions throughout SCORE's 1,208 practice lessions. With mastery learning, as it is incorporated in SCORE, the amount of time needed to master a skill-unit is automatically regulated by the student's performance rate or aptitude (Carroll, 1963). For this reason, students of any given ability can use SCORE and master the same skills at a 90-95% success rate. Thus, SCORE tutored pupils maintain performance at an "independent level" (90-100%), far exceeding commonly accepted frustration levels below 70%.

SCORE adds to mastery learning the principles of operant conditioning with systematic reinforcement, found by Skinner (1954), Cradler & Goodwin (1971) and others to significantly increase correct responses and insure successful completion

of learning units. Staats (1965) and others have demonstrated the efficacy of conditioning principles in reading training. SCORE contains a built-in reinforcement system in which points are earned for each correct response. The points are then exchanged for rewards and recorded on progress charts. Daily behavioral report cards (SCORE Cards) provide for a back-up reward system based in the student's home (Lahey, et al, 1977).

The word-list format used in SCORE is based on the finding by Samuels (1978) that decoding can be most efficiently learned when words are presented in isolation and that context, especially when pictures are used, slows down mastery of phonetic elements. The use of the word-list format with words introduced in a gradual sequence of phonetic skills groupings was first used by Noah Webster (1843) in his Elementary Spelling Book. With the return of phonics in the 1950's Flesch (1956), Bloomfield (1961) and Gray (1969), have found varied arrangements of phonetic continuums presented in a simple list form to be the most effective format for teaching decoding.

Recently an extensive study to determine the factors that contribute to increased reading performance was reported by Jane Stallings (1979). She reported that "drill and practice, reading aloud, positive corrective feedback, and time-on task were significantly positively correlated to reading gain". She then developed a JDRP approved training model to implement these findings. These factors are also incorporated into the SCORE Tutorial Reading System...particularly strategies to increase "time-on task" through "active learning time" with high correct response rates.

Content and Strategy: SCORE is a supplementary reading program which systematically teaches decoding or phonics skills in the following general sequence: sound blending, short vowel words, consonant blends, long vowels, diphthongs, digraphs, two syllable and three syllable words. The skills sequence was empirically derived and later subjected to extensive item-analysis during pilot testing in an attempt to produce a "linear" continuum of skills. This procedure made possible the continuous 90-95% correct response rate and minimized "trouble spots" in the curriculum. The pilot test and item-analysis was conducted with 50 learning disabled pupils in South San Francisco, California.

The final program incorporates the complete sequence of lessons as words or phonetic elements presented in six student books, totaling 353 pages, from which the student reads aloud to his tutor. The 353 pages are divided into 51 carefully sequenced teaching units, each consisting of three to eight pages. Each unit provides a Challenge Page or pre-test, Teaching Pages and a Review/Recycle Page, or post-test.

The Challenge Page tests the elements taught in the unit. If all Challenge Page words are read out loud to the tutor correctly, the student then skips the unit to the Challenge Page of the next unit. If the pupil falls below 100% on the Challenge Page, he/she then goes to the next page-the first Teaching Page of the unit.

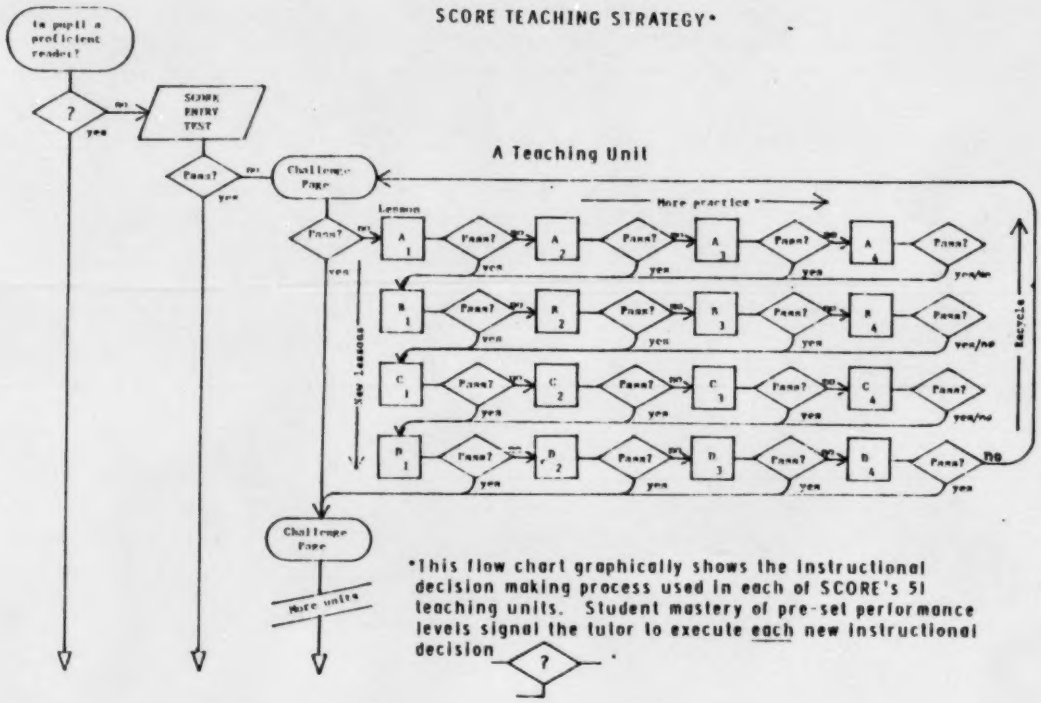
Each Teaching Page introduces three to eight new words or phonetic elements with controlled review of prior elements. The words are presented in five randomized 20-word lists per page. The first list is used by the tutor to "model" or teach the correct pronunciation of new elements and the remaining four lists are for practice. As soon as the pupil reads a list at 100% accuracy, he skips the remaining lists and proceeds to the next page.

At the end of each unit is a Review/Recycle Page. This page provides a long-term review and testing of words mastered on a short-term basis. If the pupil falls below 100% mastery on the final 20-word list, he then "recycles" back through the unit.

This strategy insures that students respond at a high rate of success (90-95%) while only practicing words or elements that they have not already learned. Addi-

tionally, this programmed strategy is easy for tutors to learn and use while allowing the pupil's performance to precisely determine the needed amount of practice to achieve mastery at any given time. The flow chart below illustrates the strategy described.

SCORE TEACHING STRATEGY*



*This flow chart graphically shows the instructional decision making process used in each of SCORE's 51 teaching units. Student mastery of pre-set performance levels signal the tutor to execute each new instructional decision ?.

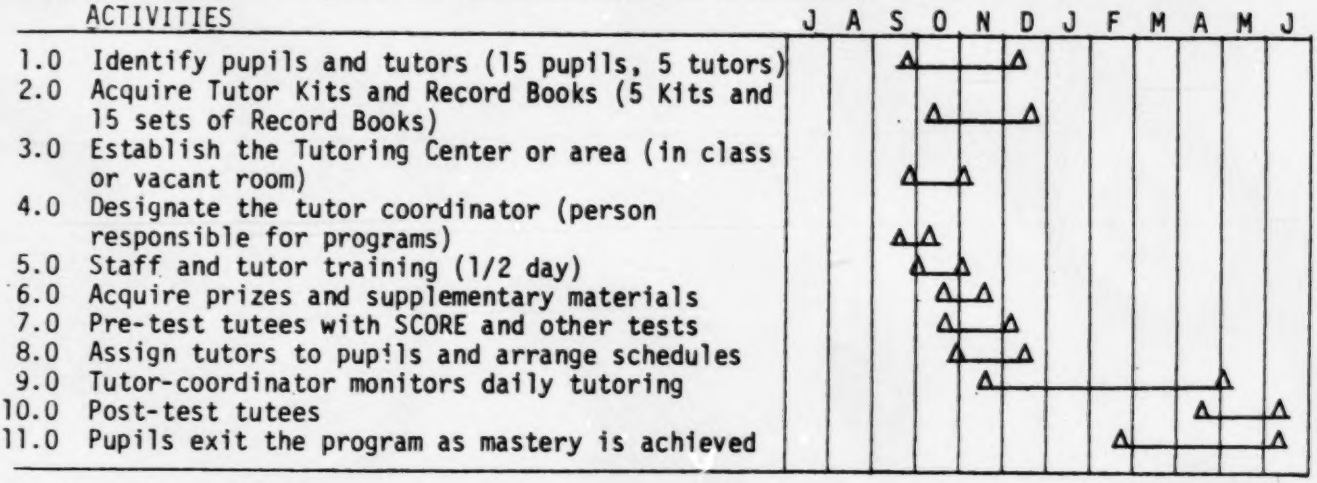
The tutor keeps track of the pupil's correct responses, errors, rates, and daily pages completed with the SCORE Record Book. The Record Book contains all lesson pages, size reduced with continuous tutor-instructions and a daily record of both the progress of the pupil and the tutors' adherence to procedure.

Built-in reinforcement is provided in that the tutor clicks a tally-counter for each correct oral reading response to signal the pupil of a correct response and that a point has been earned. The points are recorded and may be later exchanged for tangible, symbolic, or activity rewards. A timer is used to control the length of the tutoring session and to keep track of daily reading rate which is charted by the tutor.

The program is cross-indexed with 60 Primary Phonics Readers (Makar 1977) and other similar readers published by Educator's Publishing Service. When a student completes a given SCORE unit at mastery level, he then branches into the pre-selected reader that contains the SCORE elements mastered.

The program also includes diagnostic criterion reference tests to determine student need for SCORE and the percent of phonetic elements mastered as a result of using the program. Special markers and a cue card help correct letter and word reversal errors. A daily school-home report card communicates to the student's parent(s) the number of words read correctly and the amount of effort the student demonstrated during each 15 minute tutoring session. The necessary materials are packaged in the inexpensive SCORE Tutor's Kit, which included the 6 student books, a set of record books, a manual, Criterion Reference Tests, a timer, counter, and reversal markers.

Implementation: SCORE can be readily adapted to a broad spectrum of established classroom organizational structures. SCORE tutors teach pupils, individually, either in a mainstreamed classroom learning station or in a special room designated as a tutorial center. Pupils of any age who read below the fourth grade level or who are very slow readers can benefit from SCORE. After a brief, two to three hour, training session tutors work with students on a one-to-one basis for 15 minutes per day. The major steps needed to implement SCORE are listed on the sample "Time Line" chart below. The necessary instructions for using a SCORE Kit are included in the instruction manual that is part of the kit. In-depth information on implementation as well as a script for training tutors is included in the Program Implementation and Tutor Training Manual with Masters for Transparencies (Cradler, 1979).


ACTIVITIES
J A S O N D J F M A M J
1.0 Identify pupils and tutors (15 pupils, 5 tutors)
2.0 Acquire Tutor Kits and Record Books (5 Kits and 15 sets of Record Books)
3.0 Establish the Tutoring Center or area (in class or vacant room)
4.0 Designate the tutor coordinator (person responsible for programs)
5.0 Staff and tutor training (1/2 day)
6.0 Acquire prizes and supplementary materials
7.0 Pre-test tutees with SCORE and other tests
8.0 Assign tutors to pupils and arrange schedules
9.0 Tutor-coordinator monitors daily tutoring
10.0 Post-test tutees
11.0 Pupils exit the program as mastery is achieved

Implementation Costs

Materials: The SCORE Tutor's Kit includes all nonconsumable materials for one tutor and a set of consumable record books for one pupil. A set of consumable SCORE Record Books is required for each additional pupil. All materials required to implement the SCORE Tutoring Program for one tutor and one pupil are contained in the SCORE Tutor's Kit.

Training: The program can be effectively implemented by reading the manual of instructions included in the Tutor's Kit. However, inservice is suggested for anyone who will be using the SCORE materials. The major focus of the inservice is to train district staff to be their own tutor trainers. A Tutor-Trainer Script with overhead transparency masters is included with the Implementation and Training Guide.

Costs: For a group of 30 pupils with three to four pupils per tutor in the first year only, the estimated cost would be $18.60 per pupil based on the following expenditures:

Number	Item	Installation	Subsequent Years
1	Four-hour inservice program (plus transportation and per diem)	$ 75.00	------
8	SCORE Tutor's Kits @ $44.50 per Kit	356.00	------
22	SCORE Record Book Sets @ $3.00 per set (consumable)	66.00	66.00
1	SCORE Implementation Guide and Training Script	10.00	------
	Supplemental materials	50.00	20.00-50.00
	Total	$557.00	$86.00-$116.00

For each additional 30 pupils, the estimated per-student cost would be $3.00 to $5.00 per pupil, depending on the necessary supplements that are purchased. The additional inservice would be provided from within the district by turnkey trainers on an as-needed basis.

EVIDENCE OF EFFECTIVENESS

Claims of Effectiveness: When the core elements of SCORE are implemented as specified by the program's implementation criteria, the following are claimed:

1. SCORE tutored pupils, certified as Learning Handicapped, will show significantly greater gains in reading, word recognition, and accuracy on standardized measures than their matched counterparts enrolled in regular classes with traditional group instruction and special education (LD) classes.
2. SCORE tutored pupils, certified as Learning Handicapped, will show significantly greater gains in decoding and phonetic skills on criterion reference measures than would the matched counterparts enrolled in regular and special education classes.

Evaluation Design: The product evaluation plan utilized a pre-post comparison group design. Approximately 120 first through sixth grade pupils, certified as Educationally Handicapped (EH), were divided into three groups-a target group of 61 SCORE tutored pupils, a comparison group of 30 pupils enrolled in Learning Disability class and a second comparison group of 28 pupils receiving regular instruction only. All pupils were pre- and post-tested on both normed and criterion reference tests of reading accuracy and comprehension. Analysis of Variance and Fischer's t were used to determine whether or not the target group gains were significantly greater than the comparison group gains.

Process evaluation consisted of project-validated surveys administered on a post only basis to assess perceived effectiveness of, and attitudes about, the SCORE Program. The surveys were administered to teachers, tutors, and parents of all target pupils (Cradler, 1978).

Students served and context: The intended users for this study were students who were certified, according to California Education Code Regulations, as Educationally Handicapped (EH). Briefly, these pupils were certified to be of normal intelligence with learning disabilities that interfere with academic achievement in the area of reading. The target pupils consisted of 39 males and 22 females who were mildly to moderately learning handicapped. The pupils were divided evenly between lower middle and middle socioeconomic status.

The study was carried out in two districts with about one-half of the pupils enrolled in each. The districts were South San Francisco Unified and Campbell Union School District—geographically isolated by about 40 miles. Both districts consist of students which are representative of a cross-section of the population from blue-collar to upper-middle socioeconomic status and in urban areas south of San Francisco, California. The district populations ranged from 8,000 to 12,000 pupils who were about 80% white with the remainder being Hispanic, Asian and Black.

Instrumentation: Product evaluation included four measurement instruments, the Wide Range Achievement Test (WRAT) Word Recognition Subtest, the Gilmore Oral Reading Test, the Operational Assessment Tool (OAT), and the SCORE Test. A brief discussion of the purpose, and the validity of each these measures follows.

The WRAT provided an individually administered standardized measure of word recognition. This test was chosen because it is commonly used for identification of EH pupils, is quick and easy to administer, and has proven validity and reliability. The WRAT Manual (Jastak and Jastak, 1978) indicates that the test correlates at high levels with reading gains, growth and age factors, the Stanford (r=+.49-+.82) and Metropolitan Achievement Tests (r=+.60-+.73) and teacher ratings of reading achievement.

The Gilmore Oral Reading Test was chosen to provide an additional standardized measure to assess reading accuracy and comprehension. With this test, pupils read aloud to the examiner short paragraphs and then answer four questions about the content of each passage. The Gilmore Manual (Gilmore and Gilmore, 1968) reports a high correlation between the Gilmore and Gray Oral Reading Test (r= +.45), as well as, the Durrell Analysis of Reading Difficulty (r= +.50). High correlations

were also found between the Gilmore and the Gates Word Pronunciation Test (r=.90) and the Stanford Achievement Test (r=.83). The Wide Range Achievement Test was also found to have a high correlation with the Gilmore. Reliability data indicates high stability of the test scores over time.

The Operational Assessment Tool (OAT) is a published and validated Criterion Reference Test of phonics mastery. This test was chosen because it assesses the complete range of phonetic skills introduced by SCORE, provides phonetic subskill data and is quick and easy to administer. The publisher developed this test from a task-analysis of a phonic-linguistic organization of reading skills. Computer selected, specific skill clusters and items which were the most predictive of reading mastery were used in the test. Their research shows that the OAT significantly discriminates between readers and non-readers (Westerman, G.S., 1977).

The SCORE Test (Cradler, 1973) was developed by the authors of SCORE to be used as criteria for determining whether or not a student can benefit from SCORE and as a pre-post measure of a student's progress in the program. The test consists of 111 words to be read aloud and scored according to specific procedures. The words were carefully selected through repeated item analysis to provide a closely representative sample of the elements taught in SCORE on a unit by unit basis. Scoring of the test is based on mastery or non-mastery of each word and is reported as the percent of correct responses. The project showed the SCORE Test correlates at .77 with the number of unit tests (challenge pages) mastered. The SCORE Test also shows a high correlation with the OAT Phonics (r=.90) and the WRAT Word Recognition Tests (r=.70). Pupils who score above the 90% "passing criteria" on this test are able to pass about 45 out of the 51 pre-unit criterion reference tests.

Credibility of evidence and evaluation procedure. At each district, a 1/2 time coordinator, familiar with evaluation procedures, was selected to oversee the project for its three year duration. Tutor managers were four instructional aides selected by the coordinators. An aide was assigned to each of four rooms in four elementary schools designated as SCORE Tutoring Centers. The student tutors were selected according to criteria which included: (1) be at least 12 years or older, (2) be able to pass the SCORE Test at 95% correct, (3) have a desire to tutor, and (4) have written approval from their teacher and parent(s) to serve as a SCORE tutor. The final selection consisted of 24, fifth and sixth grade tutors, 12 junior high tutors and nine high school tutors. The tutors were trained in groups of 6-12 with the standardized training procedures described in the SCORE Implementation and Training Guide (Cradler, 1979).

Student selection was determined by pre-established criteria which included: (1) prior EH certification, (2) teacher judgment of pupils to benefit from remedial reading, and (3) a score resulting in less than 30% correct on the SCORE Test. After this initial selection process, all potential subjects were administered the WRAT Word Recognition and the SCORE Test by a trained project aide. Subsequently, the pupils were assigned to: (1) SCORE tutored target group, (2) the special class (LD) comparison group, and (3) the regular class comparison. Students were matched by WRAT pre-test score, age, and sex with all other variables randomly assigned. All pupils were within the normal range of intelligence and certified as Educationally Handicapped (EH) prior to their selection for the project. Two of the projects' instructional aides were trained by the project coordinators to administer and score all pre-post measures. All testing procedures and data collection were supervised by the project coordinators. Table I shows the relative group matching by pre-tested achievement levels. Analysis of variance show that there were no significant differences between pre-test means of the WRAT ($F=2.40$ $p>.05$), the Gilmore Accuracy ($F=1.11$ $p>.05$), the SCORE Test ($F=.80$ $p>.05$) and the OAT ($F=1.94$ $p>.05$).

Table 1: Mean reading scores of Target and Comparison groups prior to intervention

	SCORE tutored	Regular Class	Special Class	Type of Scores
Total Number of Pupils	61	30	28	
Word Recognition	2.1	2.1	1.7	grade equivalent
Gilmore Accuracy	1.80	1.99	1.57	grade equivalent
SCORE Test	22.4	26.5	20.0	percent correct

After selection, three or four pupils were randomly assigned to a tutor. All pupils began to receive SCORE tutorial instruction during October and November, for 15 minutes per day, four days per week at a tutoring center. The tutors consistently followed the prescribed SCORE procedure at all four school sites. All sites used daily report cards to parents and teachers, supplemental comprehension readers, and the external reward sytem. Target pupils also received the traditional reading program in their regular classrooms, as did the two non-SCORE comparison groups. As target pupils completed SCORE, they were post tested on the four reading tests and at the same time a matched comparison counterpart was also post tested. Post testing took place from February through April. The process-evaluation surveys were administered to teachers, tutors, and parents in May.

Evidence to Support Claim #1: The first claim was supported in that SCORE tutored pupils, certified as Educationally-Handicapped (EH), showed significantly greater gains in Word Recognition and Accuracy than their matched counterparts enrolled in regular and special education classes. A one way analysis of variance (ANOVA) followed by *t* tests was computed to determine whether or not significant differences in gain scores between the three groups occurred. As can be seen in Table II, the SCORE tutored pupils produced significantly greater gains than did either of the two comparison groups in word recognition and reading accuracy.

Table II: Mean Raw and Grade Equivalent Scores for SCORE and Comparison Group Students

Measure/Group	N	Pre-test Mean	Pre-test SD	Post-test Mean	Post-test SD	Gain	ANOVA	Fisher's t
WRAT (reading)*								
A-SCORE Group	61	2.1 (38.87)	9.71	2.8 (48.72)	7.95	0.7 (9.85)	(AxBxC) F=18.26 p<.01	(AxB) t=3.58 p<.01
B-Special Class	28	1.7 (34.43)	10.62	1.9 (36.46)	10.55	0.2 (2.04)		(AxC) t=2.31 p<.01
C-Regular Class	30	2.1 (40.37)	13.08	2.5 (44.70)	11.21	0.4 (4.33)		
Gilmore Accuracy**								
A-SCORE Group	61	1.80	0.99	2.74	1.02	0.94	(AxBxC) F=13.52 p<.01	(AxB) t=2.054 p<.05
B-Special Class	28	1.57	1.13	2.06	1.07	0.49		(AxC) t=2.304 p<.05
C-Regular Class	30	1.99	1.18	2.44	1.18	0.44		

* Numbers shown in parentheses are raw scores used for ANOVA and *t* tests.
** Because of alternate forms, grade equivalent scores were used for Gilmore ANOVA and *t* tests. ANOVA and Fisher's *t* tested for significant differences between group gains.

Additional support for the first claim of effectiveness was provided by one-way ANOVA's computed between the pre- and post-test means of both normed measures. The differences between group means on the pre-tests were not significant with either the WRAT ($F=2.40$ $p>.05$) or the Gilmore ($F=1.11$ $p>.05$), while the differences between the group means on the post-tests were significant on both the WRAT ($F=16.02$ $p<.01$) and the Gilmore ($F=3.99$ $p<.05$). Figures 1 and 2 illustrate both the comparative gains and differences between pre- and post- group means for the standardized measures.

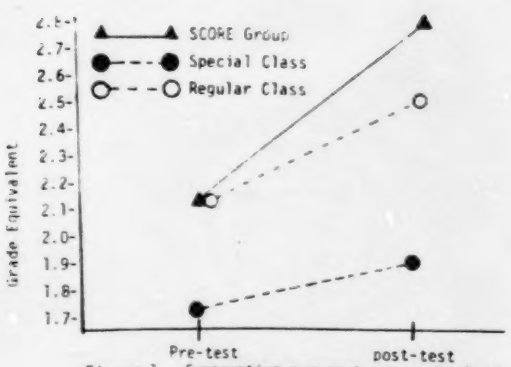


Figure 1. Comparative pre-post means obtained with the WRAT Word Recognition Subtest.

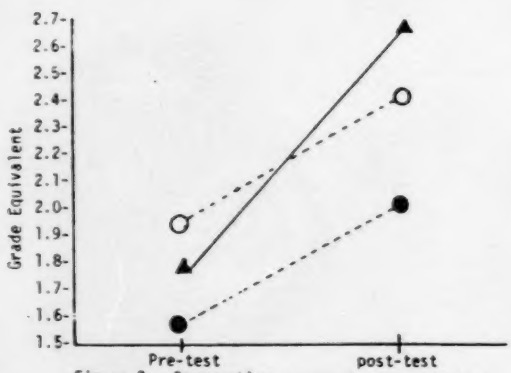


Figure 2. Comparative pre-post means obtained by the Gilmore Accuracy Subtest.

Evidence to Support Claim #2: SCORE tutored, EH pupils, showed significantly greater gains on both criterion referenced measures than their matched counterparts enrolled in regular and special classes. As with the standardized measures, a one way ANOVA followed by t tests for uncorrelated samples were computed to determine whether or not the differences in gain scores between the three groups were statistically significant. Table III, below, clearly shows that on both the criterion measures of phonetic decoding, the SCORE tutored pupils produced gains significantly greater than either of the comparison groups. These differences were more significant than were the results for the standardized measures. Because the SCORE Test is a direct measure of the continuum of skills that SCORE teaches, it showed somewhat greater gains than the OAT.

Table III: Mean Raw Scores and Percentages for SCORE and Comparison Group Students

Measure/Group	N	Pre-test Mean	Pre-test SD	Post-test Mean	Post-test SD	Change	ANOVA*	Fisher's t
SCORE Crit. Ref. Test*								
A-SCORE Group	61	20.11 (22.38)	16.31	54.08 (60.02)	25.41	33.97 (37.64)	(AxBxC) F=50.01 p<.01	(AxB) t=3.45 p<.01
B-Special Class	28	18.36 (20.04)	16.79	27.14 (30.18)	23.89	8.79 (10.14)		(AxC) t=3.41 p<.01
C-Regular Class	30	23.85 (26.47)	27.40	33.51 (37.20)	28.73	9.67 (10.73)		
OAT Test*								
A-SCORE Group	61	20.20 (26.46)	22.76	38.60 (50.56)	24.10	18.40 (24.10)	(AxBxC) F=16.63 p<.01	(AxB) t=3.19 p<.01
B-Special Class	28	12.68 (16.61)	17.81	16.66 (21.82)	19.11	3.98 (5.21)		(AxC) t=2.93 p<.01
C-Regular Class	30	24.14 (26.80)	28.83	29.88 (33.17)	27.04	5.74 (6.37)		

* Numbers shown in parenthesis are raw scores used for ANOVA and t tests.

The differences between group means on the criterion referenced pre-tests were not significant with either the SCORE ($F=.80$ $p>.01$) or the OAT ($F=1.94$ $p>.01$), while the differences between the group means on the post-tests were highly significant with both the SCORE ($F=15.69$ $p<.01$) and the OAT ($F=13.42$ $p<.01$). Figures 3 and 4 below illustrate both the comparative gains and differences between pre- and post-test group means on the criterion referenced tests.

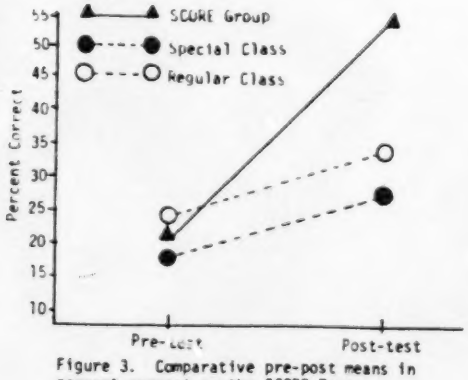


Figure 3. Comparative pre-post means in percent correct on the SCORE Test.

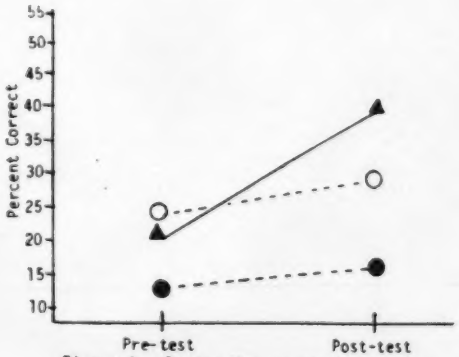


Figure 4. Comparative pre-post means in percent correct on the OAT.

Evidence that effects are attributable to the intervention: The project was replicated each of 3 years with the same project staff and evaluation design and with a different group of pupils each year. The mean gains from the first two years of the project show that the outcomes of the first two years showed a trend that was similar to the 1977-78 data. Figures five and six show the mean gains produced in one month for each of the three project years.

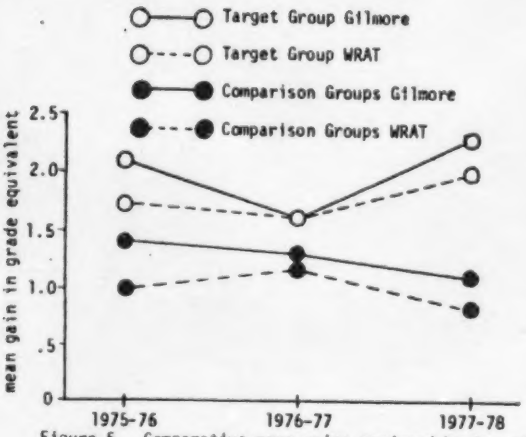


Figure 5. Comparative mean gains produced by target and comparison groups on standardized measures.

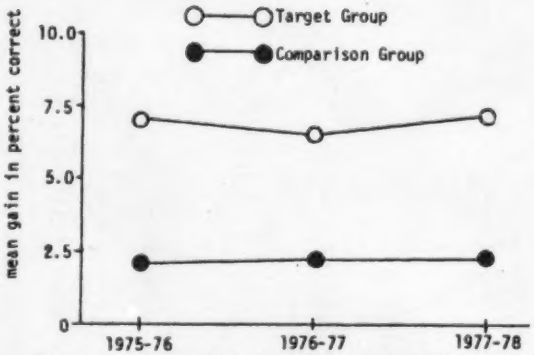


Figure 6. Comparative mean gains produced by target and comparison groups on the SCORE Criterion Referenced Test.

These results tend to rule out novelty effects that often inflate results the first year of a project. Additionally, these outcomes support the claim that the effects are independently a function of the intervention.

One may raise the question...could the 15 minutes per day of individual attention to the target pupils by tutors be the intervention that affected the gains? Investigation showed that the special class group of pupils received individual assistance for at least 45 minutes per day while 70-80% of the regular class group of pupils were receiving varied types of individualized remedial reading for at least 15 minutes per day. The project staff were careful to disallow the target pupils to receive any other individualized assistance other than from their SCORE tutors. The target pupils had been enrolled in the same basal reading programs in regular classes as the comparison pupils. These consisted of the Economy, Lippincott and the Harper Row Basal Reading Programs.

Process Evaluation: Another, more subjective, indicator of educational relevance are the observations and reactions by those who are directly and indirectly involved with the program. The evaluation design provided for a systematic survey type evaluation of SCORE by 31 teachers, 49 parents, and 45 SCORE tutors. In general, 93% of the teachers, with SCORE tutorial pupils enrolled in their classes, noted significant improvement in the phonetic reading skills of these students. Ninety-three percent said the pupils enjoyed being tutored and 75% felt that the SCORE pupils evidenced an improved attitude toward reading. Ninety-six percent of the parents of SCORE-tutored pupils noted reading improvement, while 90% saw improved attitude. Ninety-six percent of the tutors (6th grade to adult) indicated they liked the program and working with the pupils. Tutors rated the experience as a B+ or A- for themselves.

Educational Significance of the Effects: The educational significance of SCORE is evidenced by the fact that highly significant gains were produced on both standardized and criterion referenced measures. Significance with standardized measures implies that SCORE influences reading proficiency independent of the curriculum used and can effect the "general skill factors" that imply reading fluency. Significance on the criterion referenced measures shows that SCORE has a very direct influence on a very definable range of phonetic-decoding skills and that pupils master the specific skills introduced by the curriculum. The criterion test data allows teachers to know what specific reading skills SCORE can most effectively teach.

Cost-effectiveness: Cost-effectiveness is another important factor when considering the educational significance of SCORE. Cost-effectiveness analysis showed that the average cost to produce an achievement gain of one month on the WRAT and Gilmore Test ranged from $1.00 to $5.00 while the cost for a special education program to produce the same gain was $150.00 to $200.00 and for traditional remedial reading classes ranged from $25.00 to $50.00 per month for a month's gain in reading achievement (Goodwin, 1978). Obvious reasons for the low cost, with corresponding gains, are: (1) the use of students as teachers (tutors), (2) the pre-programmed teaching strategy, (3) the high response rate (200-350 correct responses per 15 minute session), (4) the use of continuous and immediate positive reinforcement, and (5) the SCORE materials are non-consumable.

EVIDENCE OF GENERALIZABILITY AND IMPACT ON OTHER LOCATIONS

Adoption sites: Project SCORE was selected by the Title IV-C Exemplary Program Replication Unit (EPRU) as an Exemplary Incentive (EI) project, funded for statewide dissemination in California commencing in September of 1977. Since that time over 1500 persons have been trained while 6,000 tutor kits for an estimated 6,000 tutors and 30,000 sets of Record Books for an estimated 30,000 pupils have been distributed throughout California. The program is now used to a varying extent in over 2,000 schools in California. As of now, 28 California districts have been funded by ESEA Title IV-C adoption grants to adopt or adapt Project SCORE. Data has been collected on over 800 students at 28 of the adoption sites that have been certified by Project SCORE staff as having installed the necessary "core elements" or minimum criteria for a faithful replication of the original program. The results showed that mean scores were the same as or exceeded the gains shown by the original project from 17 out of 17 adopters on WRAT Word Recognition, 20 out of 23 on the SCORE Test. In only 2 adoption sites were the resulting gains less than those produced by the SCORE tutored Target Group in the original project. These data suggest that SCORE is effective in locations and with types of student that differ from the original site.

Table IV below shows data from selected California adoption sites that included pupils which differed from those in the original project. This data suggests that SCORE is consistently effective with diverse populations in a variety of settings.

Table IV: SCORE Adoption Sites that Differ from the Original Project

Location	Grade Levels	Urban Rural	Type of Students	Type of Tutors	Gains per mo. WRAT	Gains per mo. SCORE
Original Project	1-6	Urban	EH/LD, white, lower-middle SES	Students Gr. 6-12	2 mos.	7.1%
Los Angeles, CA	7-9	Urban	EH/LD, black, lower SES, Title I	Peer tutors	8.9	13.3%
Brentwood, CA	9-12	Rural	EH/LD, chicano, lower SES, Title I	Peer tutors/aides	4.2	6.0%
Irvine, CA	1-5	Urban	EH/LD, white, upper middle SES	Alt. HS students	7.0	17.7%
Pacifica, CA	1-5	Urban	White, chicano, lower SES	Aides, parents	5.1	10.3%
Gilroy, CA	1-5	Rural	Chicano, lower SES, Title I	Aides, parents	3.3	16.5%

Additional Research: Since 1975, five Master's Theses and one Doctoral Dissertation have been completed on the SCORE program. The findings of the Theses, completed at San Jose State University, and other studies, are briefly summarized as follows.

Two of the masters theses showed that SCORE was significantly more effective than traditional approaches in teaching reading to Educable Mentally Retarded (EMR) pupils in grades 1-9 (Tierney, K., 1977 and Gerbing, B., 1975). Another study showed that SCORE produced significantly greater gains in reading than did Distar and Sullivan materials for Junior High School Educationally Handicapped Pupils (Tierney, B., 1976). A thesis by Audrey Amar (1975) showed that children with auditory perception deficits can improve reading skills through SCORE as an alternative to specialized auditory discrimination training procedures. A Doctoral Dissertation by Dr. Judy Rogers (1979) for the University of San Francisco showed that when properly trained, upper-elementary grade students can effectively tutor primary second grade pupils. She found that the experimental (SCORE) groups produced significantly greater gains than matched control groups in reading accuracy and comprehension. Another thesis study showed that SCORE-tutoring increased the self-concept of tutors (Rundberg, S., 1978). Finally, a project conducted in Pacifica, California, showed that the reading scores of 6th grade student tutors gained an average of 17.3 months after serving as tutors for 2 months. These tutors showed greater gains than their pupils (Walls, K., 1979).

The conclusion from the research suggests that SCORE is a cost-effective method of remediating reading skills of Educationally Handicapped pupils in the least restrictive (mainstreamed) learning environment. Additionally, the program is easily adapted to, and is effective with, non-handicapped pupils who vary widely in age, socioeconomic status, ability, and educational background.

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UNITED STATES DEPARTMENT OF EDUCATION
WASHINGTON, D.C. 20202

DEC 2 1980

Mr. Ira D. Barkman, Coordinator
Exemplary Programs Replication Unit
California Department of Education
721 Capitol Mall
Sacramento, California 95814

Dear Ira:

This is just a note to thank you for sending us the JDRP proposal Project SCORE from South San Francisco. We reviewed it Friday and are sending it forward to the Panel just as it came to us. It is a real pleasure to receive a proposal as well developed and presented as this one. Out of probably 200 proposals that we have read, this is only the second one that was acceptable as it came to us.

Send us more like this one.

Sincerely yours,

Howard C. Essl
Program Development Branch
Division of State Educational
Assistance

cc: John D. Cradler

Note: On December 22, 1980, The Joint Dissemination Review Panel voted 5 to 0 to elect Project SCORE as a Nationally Validated Program, eligible for National Diffusion Network funding and ESEA Title IV-C funding for local adoption. The Division of State Education Programs of the National Department of Education has selected this proposal to be used as a "model" JDRP submission for use by State Faciliators across the nation.

UNITED STATES DEPARTMENT OF EDUCATION
WASHINGTON, D.C. 20202

January 7, 1981

Mr. Ira D. Barkman, Coordinator
Exemplary Programs Replication Unit
California Department of Education
721 Capitol Mall
Sacramento, California 95814

Dear Mr. Barkman:

Staff reviewers in the Division of State Educational Assistance were extremely pleased with the JDRP proposal, Project SCORE, which was submitted by the South San Francisco Unified School District. It was in such an excellent condition that it was sent to JDRP without any revisions. The frequency with which that occurs is extremely minimal, about 1 out of every 100 proposals we receive.

The Joint Dissemination Review Panel also found the project to be exemplary. On December 22, 1980, the Panel voted 5 to 0 to accept Project SCORE as a nationally validated project. That acceptance made Project SCORE eligible for funding by the National Diffusion Network and for inclusion in the U.S. Department of Education's bulletin, Educational Programs That Work.

Additionally, Project SCORE's proposal was one of five (out of the 200) selected by our Division to be sent to all State ESEA Title IV Coordinators for their use in assisting their local Title IV-C project directors in designing project evaluations and in preparing future JDRP proposals.

I want to thank you for your assistance in having the proposal submitted. Both Superintendent Gaffney, John Cradler, Coordinator of Special Projects and Research, and other staff members of the South San Francisco Unified School District are to be complimented for their excellent use of ESEA IV-C funds.

Sincerely,

Alpheus L. White
Director, Division of State
Educational Assistance

cc:
T. Gaffney
J. Cradler
S. Efken
R. Reyes

SCORE

QUESTIONS AND ANSWERS ABOUT SCORE...

AN EXEMPLARY PROGRAM APPROVED BY THE U.S. DEPARTMENT OF EDUCATION

WHAT IS SCORE?

Success Controlled Optimal Reading Experience (SCORE) is a sequential phonics program designed to be taught by paraprofessionals, tutors, parents or anyone who can easily read above a 5th grade level. SCORE is designed to teach pupils of any age who are deficient in basic word attack skills and/or who are reading below the fourth grade level (Cradler, Bechthold & Bechthold 1973).

The general student performance objectives of the program are to systematically teach mastery of: (1) sound blending, (2) short vowels, (3) long vowels, (4) blends, (5)diphthongs, (6) two and three syllable words, (7) all other phonetic categories and variants, and (8) 65% of the basic sight words (see appendix A for Scope and Sequence). Additional objectives include: (1) increased student motivation to read, (2) improved attention span, (3) decrease in reversal errors, and (4) improved self-confidence in reading situations.

In every way possible, the findings of sound educational research were the guiding factors in the development of SCORE. The SCORE teaching strategy is based on a mastery teaching model suggested by researchers Block (1971) and Bloom (1971). The essential features of SCORE are: (1) skills clearly identified and placed in a hierarchical psycholinguistic sequence, (2) skills organized into well-outlined learning units, (3) complete mastery of each unit before going on to the next unit, (4) ongoing imbedded testing with a predetermined criteria to signal when to advance or recycle the pupil, and (5) alternate learning routes determined by the student's responses to any given lesson. Student mastery of pre-set performance levels automatically signals the tutor to execute over 3,000 possible instructional decisions throughout SCORE's 1,208 practice lessons. The teaching process is illustrated in appendix A. SCORE adds to mastery learning the principles of operant conditioning with systematic reinforcement, found by Skinner (1954), Cradler & Goodwin (1971) and others to significantly increase correct responses and insure successful completion of learning units. Staats (1965) and others have demonstrated the efficacy of conditioning principles in reading training. SCORE contains a built-in reinforcement system whereby points are earned for each correct response which are exchanged for rewards, as well as, recorded on progress charts. Daily Behavioral Report Cards (SCORE Cards) facilitate a back-up reward system based in the student's home (Lahey, et al, 1977).

With mastery learning, the amount of time needed to master a skill-unit is automatically regulated by the student's performance rate or aptitude (Carroll, 1963). For this reason, students of any given ability can use SCORE and master the same skills at a 90 to 95% success rate. Thus, SCORE tutored pupils maintain performance at an "independent level" (90-100%), far exceeding commonly accepted frustration levels below 70%. SCORE has proven its effectiveness in teaching mastery of decoding skills to learning handicapped pupils, mildly retarded pupils, behaviorally handicapped pupils, bilingual pupils, and students in regular programs who lack basic phonetic skills.

The word-list format used in SCORE is based on the finding by Samuels (1978) and others. They found that decoding can be most efficiently learned when words are presented in isolation and that context, especially when pictures are used, slowed down mastery of phonetic elements. This research also showed, as was found by the authors of SCORE, that once decoding becomes automatic, comprehension

SCORE IS FUNDED FOR STATEWIDE DISSEMINATION BY ESEA TITLE IV-C

significantly increases. The use of the word-list format with words introduced in a gradual ordered sequence of phonetic skill groupings was first used by Noah Webster (1843) in his Elementary Spelling Book. With the return of phonics in the 1950's Flesch (1956), Bloomfield (1961) and Gray (1969), to name a few, have found varied arrangements of phonetic continuums presented in a simple list form to be the most effective format for teaching decoding.

Extensive federally funded research showed that SCORE-tutored pupils, (1) more than double their prior reading gains, and (2) significantly outdistance their matched counterparts who did not receive SCORE tutoring. Analysis showed that the high response rate (words per minute) that SCORE was engineered to produce, accounts for the rapid reading gains consistently produced by SCORE-tutored students (Cradler 1978).

Because of its proven effectiveness, the California State Department of Education has recently designated SCORE as an Exemplary program. For this reason, federal funding has been made available through the Elementary Secondary Education Act (ESEA Title IV-C) for school districts to obtain up to $10,000 for implementation of SCORE.

HOW DOES SCORE WORK?

SCORE is a supplementary reading program which systematically teaches decoding or phonics skills in the following general sequence: sound blending, short vowel words, consonant blends, long vowels,diphthongs, digraphs, two syllable and three syllable words (see Appendix B for Scope and Sequence). The words are presented in six student books totalling 353 pages from which the tutee reads aloud to his tutor. The program is cross-indexed with 60 Primary Phonics readers (Makar 1977) and other readers. When a student completes a given SCORE unit at mastery level, he then branches into the pre-selected reader that contains the SCORE elements mastered. SCORE Record Books are used by the tutor to provide daily records of errors, minutes read, points earned, and pages completed. The tutor also uses a hand counter to record points earned and signal correct responses to the student and a timer to control the length of the tutoring session and keep track of pupil response rate. The program includes diagnostic criterion reference tests to determine student need for SCORE and the percent of phonetic elements mastered with the program. Special markers and a cue card help correct letter and word reversal errors. A daily school-home report card communicates to the student's parent(s) the number of words read correctly and the amount of effort the student demonstrated during each 20 minute tutoring session.*

HOW DO I IMPLEMENT SCORE?

Implementation: SCORE can be readily adapted to a broad spectrum of established classroom organizational structures. SCORE tutors teach pupils individually either in a classroom learning station or in a special room designated as a tutorial center. The materials primarily serve to supplement the regular classroom reading program. Pupils of any age who read below the 4th grade level or who are very slow readers can benefit from SCORE. After a brief training session tutors work with students on a one-to-one basis for 20 to 30 minutes per day.

The major steps needed to implement SCORE are listed on the sample "Time Line" chart on the following page. The necessary instructions for using a SCORE Kit are included in the instruction manual that is part of the kit. In-depth information on implementation as well as a script for training tutors is included in the Program Implementation and Tutor Training Manual with Masters for Transparencies, which is available from Educational Support Systems at 1505 Black Mountain Road, Hillsborough, CA 94010.

TIMELINE: The following time line is suggested for using the program in a typical public school. For those who choose to write a Title IV-C adoption grant, a detailed component-by-component time line is included in the sample SCORE adoption grant application, available at a Facilitator office or from Project SCORE.

	ACTIVITIES*	J	A	S	O	N	D	J	F	M	A	M	J
1.0	Identify pupils and tutors (15 pupils, 5 tutors)			△			△						
2.0	Acquire Tutor Kits and Record Books (5 Kits and 15 sets of Record Books)				△		△						
3.0	Establish the Tutoring Center or area (in class or vacant room)			△		△							
4.0	Designate the tutor coordinator (person responsible for programs)			△	△								
5.0	Staff and tutor training (1/2 day)				△	△							
6.0	Acquire prizes and supplementary materials				△	△							
7.0	Pre-test tutees with SCORE and other tests				△		△						
8.0	Assign tutors to pupils and arrange schedules				△		△						
9.0	Tutor-coordinator monitors daily tutoring					△					△		
10.0	Post-test tutees										△		△
11.0	Pupils exit the program as mastery is achieved								△				△

* Though the activities generally follow this sequence, the program can actually be implemented anytime during the school year or during summer session.

Student Progress Assessment: Progress assessment is provided for through the use of SCORE criterion referenced pre-post tests as well as by continuous built-in pre-unit and recycle tests. The built-in tests are a fundamental component of the mastery teaching strategy incorporated in SCORE. It is recommended that persons using the SCORE program pre- and post-test the tutees with individualized reading tests. The tests should specifically assess word analysis or phonetic skills normally taught from pre-primer to grade three.

WHAT DO I NEED TO IMPLEMENT SCORE?

Facilities: If several tutors are to work at one time, it is advisable to provide a room or office to serve as a tutoring center. Otherwise, tutors can work with students in a classroom learning station.

Inservice Training: Inservice training is suggested for anyone who will be using the SCORE materials. Consultants are available to provide inservice training which ranges from 2 to 4 hours for groups of 10 to 30 tutors. Also, an inservice Training Guide and Script can be obtained so that a district can establish its own tutor training program. Project SCORE provides scheduled free workshops at regional sites or can schedule training at school sites on request.

Costs: The inservice training costs can begin at $100.00 and increase to amounts necessary to meet the individual adoption requirements of the school and/or district. In some cases, Title IV-C dissemination and adoption grants can finance the initial training and set-up costs.

Necessary Materials: The SCORE Tutors Kit includes all nonconsumable materials for one tutor and a set of consumable record books for one pupil and is priced at $44.50. A set of consumable SCORE Record Books is required for each additional pupil (tutee) at a cost of $3.00 per pupil. All materials required to implement the SCORE Tutoring Program for one tutor and one pupil are contained in a SCORE Tutor's Kit.

A SCORE Tutor's Kit includes the following:

6 - Student Books	1 - Point Counter
2 - Record Books	1 - Lesson Timer
5 - SCORE Tests	1 - Instruction Manual
5 - Reversal Correction Markers	5 - Progress Charts

The SCORE materials can be purchased from Learning Guidance Systems, 1505 Black Mountain Road, Hillsborough, CA 94010.

Supplementary phonetic readers which are cross-indexed with the SCORE materials are highly recommended. Over 60 Primary Phonics and 30 Modern Curriculum Press phonetic readers have been cross-indexed to the SCORE system. Primary Phonics readers are obtained from Educator's Publishing Service, Cambridge, Mass. Modern Curriculum Press (MCP) readers are obtained from Modern Curriculum Press, Cleveland, Ohio. Other available supplements may include "packaged" reward systems, games, electronic teaching aids, daily SCORE Cards, spelling programs and a SCORE Implementation Guide and Training Script. Information about other materials selected to supplement SCORE can be obtained by contacting Project SCORE.

HOW EFFECTIVE IS SCORE?

For three years, ESEA Title IV-C funded a project designed to evaluate and refine the SCORE program. The evaluation design provided for annual pre-, interim, and post-assessments of a target and two comparison groups. The target group consisted of 60 to 65 Learning Handicapped (LH) pupils enrolled in SCORE, while comparison groups, not enrolled in SCORE, consisted of 30 LH pupils enrolled in partial-day Learning Disabilities classes and 30 LH pupils enrolled in only the regular program. All pupils were matched by socioeconomic status, age, and reading level. All pupils were individually tested with the Wide Range Achievement Test, the Gilmore Oral Reading Test, the SCORE Criterion Test, and the Operational Assessment Tool, a criterion referenced measure of decoding skills.

For each of the three project years, three separate groups of SCORE-tutored pupils outdistanced their comparison group counterparts on the normed, and especially, the criterion referenced measures. In general, the SCORE target groups consistently showed mean gains of about 9 months in word recognition, accuracy and comprehension, while the comparison groups gained from 4 to 5 months after about a 4 month interval. The difference in gain scores between target and comparison groups was even more outstanding on the more sensitive criterion reference tests. These tests show SCORE pupils consistently achieved from 90% to 150% increases in the number of phonetic skills mastered while the comparison pupils gained from 18% to 50%. These test results are illustrated in Figure 1 below. These results have been independently replicated by many other schools and districts.

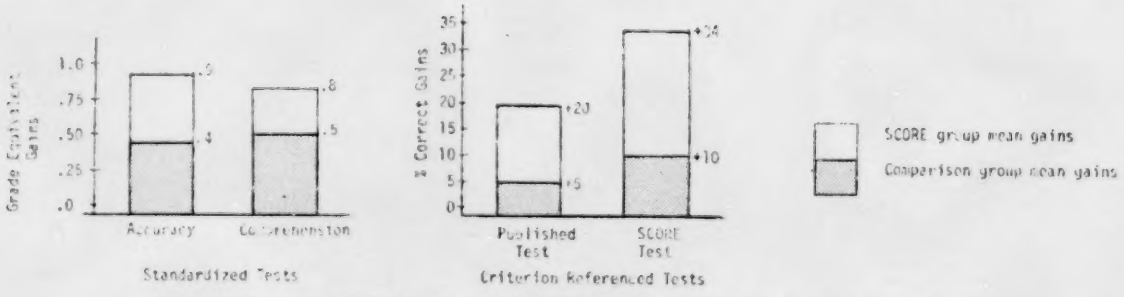

Figure 1. Comparative gains in reading achievement over 7 months produced by SCORE vs. comparison groups

The per pupil cost can vary from $3.00 to $6.00, depending on the number of pupils and extent of training. Cost-effectiveness analysis shows that in one month it can cost less than $1.00 to produce a two month gain in reading achievement using SCORE.

The evaluation design also provided for the systematic evaluation of SCORE by teachers, parents, and SCORE tutors. In general, 82% to 93% of the teachers, with SCORE tutorial pupils enrolled in their classes, noted significant improvement in the reading skills of these students. 93% said the pupils enjoyed being tutored and 75% felt that the SCORE pupils evidenced an improved attitude toward reading. 96% of the parents of SCORE-tutored pupils noted reading improvement, while 90% saw improved attitude. 96% of the tutors (6th grade to adult) indicated they liked the program and the pupils. Tutors rated the experience as a B+ or A- for themselves.

In summary, the evaluation indicated that the effectiveness of SCORE in producing gains in reading skills is easily documented with normed tests, criterion reference tests, and observations by teachers, parents and tutors. A detailed account of the research and evaluation studies on the SCORE program can be obtained from any of the three Title IV-C Facilitator offices or from John Cradler at the South San Francisco Unified School District (Cradler, J.D., 1978).

IS SCORE EFFECTIVE WITH OTHER TYPES OF PUPILS IN OTHER LOCATIONS?

Though the Title IV-C project validated SCORE with Learning Handicapped (EH/LD) pupils, it has been effectively used with students who widely vary in age and ability. For example, SCORE is being used to teach basic phonetic reading skills to: (1) educationally handicapped pupils, (2) educable mentally retarded, (3) dysphasic pupils, (4) bilingual pupils, (5) reading-handicapped adults, (6) any pupils of any age (grades 1-12) who are reading below the 4th grade level.

A survey of over 100 adoptions throughout California for 1978-79 and 1979-80 produced the following conclusions: (1) most of the respondents either became aware of SCORE from Traveling Seminars or workshops, (2) teachers tended to be responsible for implementation, (3) instructional aides and teachers predominated at workshops, (4) the program was incorporated mostly in Special Education, School Improvement and Title I programs, (5) tutors tended to be paid aides and students with resource specialists or teachers supervising, and (6) nine of the sites would serve to demonstrate the program. On a scale of 1 through 5 with 1 being "low" and 5 being "high", 90% of the 35 respondents reported ratings of 4 or 5 for "teacher satisfaction with SCORE" and "pupil and tutor interest in using SCORE". Eighty-two percent rated SCORE with 4 or 5, as a program that increases pupil motivation. Comments submitted with the surveys are included as Appendix C.

The results obtained by 40 adopters and over 800 students on both the standardized tests are very close to, and sometimes exceed, the results obtained by the original validation project. This data showed that the program generalizes and that SCORE is effective with populations other than the types of pupils participating in the original project. SCORE was first validated with predominantly "Educationally Handicapped" pupils. This data shows that the SCORE program is equally as effective with pupils enrolled in School Improvement Programs, Compensatory Education Programs and regular non-categorical programs from grades 1 through 12.

CAN SCORE BE ADAPTED TO OTHER TYPES OF PROGRAMS?

The SCORE program is most adaptable to programs that incorporate instructional aides or volunteers. For this reason, it has become a component of many Early Childhood Education Programs (now School Improvement Programs) and Special Education

programs as the major instructional activity to be carried out by aides and/or parent volunteers. SCORE has been effectively adapted to bilingual and compensatory education programs. Often districts report that the incorporation of SCORE has increased the effectiveness of these programs with commendations from State Program Quality Review Teams and other evaluators.

HOW DO I OBTAIN SPECIAL GRANTS FOR SCORE?

Any public school, district or county office can apply and compete for up to $10,000 to adopt Project SCORE. The applications for an adoption grant are available from the State Department of Education's Title IV-C Replication Unit or one of the Regional Title IV-C Facilitator offices. Project SCORE provides a sample proposal which has been partially completed to be used as a guide for potential applicants. Project SCORE staff and the Title IV-C Facilitators are available to assist in completing the proposals. Adoption proposals are due during February of 1981 and if approved commence on July 1st of 1981. For 1979-80, 12 out of 12 applicants were funded and for 1980-81, 16 out of 25 applicants were funded. Title IV-C adoption proposals are advised when the school or district can: (1) document a need for SCORE, (2) show that the staff desires to implement SCORE, (3) provide limited management of the program, (4) make available tutors, and (5) use SCORE with at least 30 pupils. If any of these conditions do not exist it is probably advisable to purchase the SCORE materials and arrange for the low-cost or free training provided by Project SCORE. Many districts have chosen to fund SCORE with Special Education (94-142), School Improvement Program (SIP), Title I, Bank of America Foundation grants, or the General Fund. For assistance in preparing a Title IV-C adoption proposal or identifying other means to fund SCORE, please contact Project SCORE.

WHO DO I CONTACT TO IMPLEMENT SCORE?

If you want information about (1) places to observe SCORE implementation, (2) free orientation sessions, (3) training workshops, (4) prices of materials, (5) how to apply for federal funding to implement SCORE, and (6) technical assistance for implementation and evaluation of a district or school-wide tutoring system, contact:

John Cradler, Director of Project SCORE
Janet Barbachano, Co-Director
South San Francisco Unified School District
398 "B" Street
South San Francisco, CA 94080
(415) 877-8835/588-7455

WHO DO I CONTACT FOR ADDITIONAL INFORMATION?

In addition to contacting Project SCORE, you should contact the Title IV-C Facilitator Office in your area. The Facilitators can assist in preparing and evaluating your proposal, provide a free video tape of the SCORE "awareness presentation", show you sample materials, and provide information about the Title IV-C Traveling Seminars and regional SCORE tutor trainer workshops.

Northern California

Jerry Balasek
Office of the Butte County Superintendent of Schools
5-A County Center Drive
Oroville, CA 95965
(916) 534-4267

Central California

Larry Mickartz
Office of the Santa Clara County Superintendent of Schools
100 Skyport Drive
San Jose, CA 95110
(408) 299-2681

Southern California

Maggie Socea
Office of the Los Angeles County Superintendent of Schools
9300 East Imperial Highway
Downey, CA 90242
(213) 922-6170

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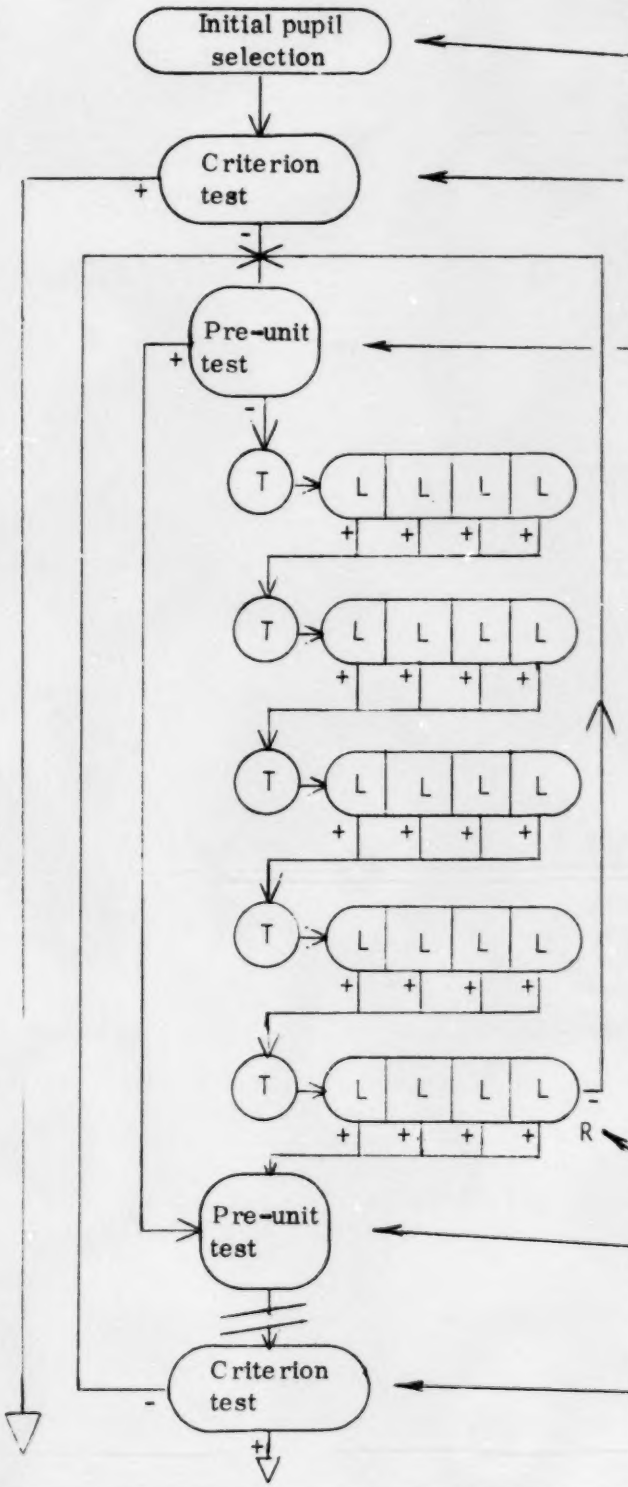
Appendix A

The SCORE Teaching Process

This flow chart graphically shows the instructional decision-making process used in each of SCORE's 51 teaching units. Student mastery of pre-set performance levels automatically signals the tutor to execute over 3,000 instructional decisions throughout SCORE's 353 teaching pages.



The selection of candidates for the SCORE program is based on evidence of a need to master word attack or phonetic skills.

The decision to place a child in the program is based on his/her performance on the SCORE Criterion test. A score above (+) the criterion level for mastery indicates the child should not enter the program. A score below (-) criterion enters the child into the program on page one of Book One.

After entering the program the decision to teach or skip a given unit of the sequence is based on whether or not the child produces a correct response to 100% of the words on a given pre-unit or "challenge page."

Each unit consists of "teaching pages" which introduce new elements while reviewing elements taught before. Each page presents one teaching list (T) and four randomly ordered branching lists (L). When the child performs at 100% mastery on a list, he then advances to the next page.

On pages designated as "recycle pages" (R), less than 100% mastery on the final branching list recycles the child back to the last "recycle page". This prevents the child from advancing to a new unit with less than 100% mastery of the last unit. "Recycle pages" occur at the end of each unit.

When the child has successfully mastered a given unit, he advances to the pre-unit test or "challange page" for the next unit.

After completion of the final unit of the program, the SCORE Criterion test is administered again. A score above the criterion level for mastery exits the child from the program. A score below criteria recycles the child back through the program.

Appendix B

SEQUENCE OF PHONETIC ELEMENTS TAUGHT IN THE SCORE PROGRAM *

BOOK 1

m, r (these
s sounds
n are
*a taught in
f isolation)

r- (sound
f- blending
m- is taught:
n- la, ra, fa,
ma, na)

p-
t-
-n (i.e., ran)

-t
-p

-g
-d
l-
d-
g-
h-

d-
b-
p-

-m
-s
-l

BOOK 2

*i (in)

w, k
s (z)

z, j

*o (on)
x

*e (pen)

BOOK 3

*u (run)
v
c

gl, pl. bl
sl, cl, fl

dr, br, tr
gr, cr, wr

sw, sn, sm
sl, sh
sk, sc
st, sp

-ck
-st
-sh
-sk, sp

-y
pr, fr

BOOK 4

ch, tch
-nd, -nt

-nk, -ng
str, spl, scr

th
wh

a (silent e)
i (silent e)

o, u

qu
c (soft)

BOOK 5

ec
ea

ay, ai
ae
oa, -e, -oe
ow
igh

ui
ew
ue

oo
oo

ow
ou
aw
au
oy

ar
are, air
or
oar, ore

er
ear
eer

ir
ur

ire, ind, ild
old, oll, olk
all, alk, wa

y-, kn, gn
-ge, ge-

BOOK 6

suffixes:
-s
-ed
-ing
-er

two syllable words with: double consonant, open syllable and closed syllable.
-y

-ble, -ple, -dle
-gle, -kle

-ade, -aid
-ane
-ail
-ake
-ate

-ack
-air
-ail
-ake
-ate

-ack
-air
-all
-ay

-eet
-ent
-est
-ell

-ender
-ete
-ede

-ide
-ite
-ise
-ind

-ose
-old
-one
-ord
-orn
-ound

-up
-use
-ute
-ue

* Not to be used as a placement guide.

Learning Guidance Systems, Copyright © 1973

Appendix C

Comments by Adopters of SCORE

Following are responses to the survey item which asked the respondent to "state any noticeable benefits of SCORE":

1978-79 adopters...

Improvement in reading speed, accuracy and fluency...children with little or no phonics skills have handled SCORE successfully...noticeable carryover into other reading materials...SCORE got some of the reluctant readers excited about reading... they were proud of their achievement...students were enthusiastic about using the materials and have learned some solid phonetic generalizations...pupil's class work has improved and MAT scores have improved also...student's self-image and attitude towards reading has improved...improved ability to attack words...highly effective and relatively inexpensive...program provided needed practice for individual children...terrific gains on WRAT...can induce a sense of accomplishment...students are really challenged to do their best...students enjoyed moving quickly through the program...excellent for teaching sound blending skills...improved decoding skills...very good reinforcement and teaching tool...a consistent, organized program that can be used by a non-professional...students stopped guessing the word and tried to sound it out...a great opportunity for parents to become involved...parents were pleased to have their children in the program...the greatest advantage of SCORE is the one-to-one relationship between tutor and student...tutors who received consistent tutoring are now more careful readers...it's great for learning initial consonants and it provides a good foundation in the vowels...works faster and is easier to use than the Monterey Reading Program...very motivating for the children... an efficient way to help children make word/letter discriminations...improved the self-image of the tutors...SCORE is a perfect tool... SCORE's most significant contribution is the demonstration it has provided of the power of success as a motivator and confidence builder.

1979-80 adopters...

SCORE helped to improve the student's self-image...immediate reinforcement is definitely an important feature of the program...SCORE is easy to implement...one-to-one contact...students gain faster than with other remedial programs...improves reading and decoding skills...builds student confidence in attacking new words...trains student to stay on task...the program establishes a high response rate in a short time...materials are clearly written, thorough, and easy to use and understand...helps stimulate student motivation and equipment and teach enthusiasm...helps students and tutors establish a sense of responsibility...individualized...it is a good supplementary program...SCORE is good phonics based material for auditory learners... it is inexpensive and cost-efficient...the reward system is built in...provides good auditory feedback...children who could not decode can now read at about the 4th grade level after completing the SCORE program...students and tutors feel real accomplishment and increased self-esteem...students increased their speed in reading...SCORE greatly improved phonics and fluency skills...students stopped guessing and began to sound words out...SCORE is a great help with b and d reversals...the immediate feedback that SCORE provides is an important feature...improved oral reading skills...helps with spelling skills, as well as, reading skills...students were not afraid to use word attack skills they learned in SCORE...virtual non-readers were able to decode 4th grade material after completing the SCORE program...the program is beautifully organized... shows noticeable results with short tutoring sessions...SCORE provides easy record keeping and recording...improved student motivation and attitude toward reading...improved student's ability to attend to specific tasks.

HOW PROJECT SCORE MEETS RECENTLY IDENTIFIED CONCERNS ABOUT SCHOOL IMPROVEMENT PROGRAMS AND PROFICIENCY STANDARDS

A survey of the California State Department of Education's Program Branch Units has identified 13 areas of concern for 1980-81. Most of these concerns were related to improving instructional programs or proficiency standards. The Title IV-C Exemplary Program Replication Unit has requested that the aspects of each of the present Exemplary Projects that meet any of the 13 areas of concern be identified. Project SCORE* is one of the Title IV-C Exemplary Projects that meet 7 out of the 13 selected "areas of concern".

AREA OF CONCERN	HOW SCORE MEETS THE CONCERN
1. Supplementing the regular program with appropriate remediation.	SCORE was tailor-made to meet the first area of concern having to do with supplemental remediation. SCORE was specifically designed to provide appropriate remediation in basic reading to supplement the regular program from grade 1-12.
2. Designing and implementing innovative strategies for remediation.	SCORE closely meets the second concern. It does provide an innovative remedial strategy which promotes proficiency in reading while not diminishing the richness of a student's educational experience.
3. Motivating students to attend regular or remedial classes.	Indirectly, SCORE meets this concern by providing a comprehensive built-in reward system. This has proven to increase their desire to participate in regular remedial classes that utilize SCORE.
4. Retraining staff.	Project SCORE addresses this area by providing a packaged program for training secondary teachers to teach basic elementary level reading skills to high school students. Many of the high schools have reported this to be a unique feature of SCORE.
5. Communicating with parents.	Though SCORE was not specifically developed as a parent-communication program, it does provide daily pupil-performance feedback via Daily Report cards (SCORE Cards). Parents may also serve as effective reading tutors.

* Success Controlled Optimal Reading Experience

6. Designing assessment and remediation of LES/NES students.	SCORE does provide an effective remedial reading program for LES/NES students. Evaluation showed that LES/NES pupils produce reading gains which were the same as, or greater than, gains produced with non LES/NES pupils.
7. Use of categorical funding to meet requirement of the proficiency law.	Through the use of ESEA Title IV-C Adoption Project funding, districts are implementing the SCORE program to facilitate meeting proficiency requirements in basic reading skills.

For additional information, please contact:

John D. Cradler, Director of Project SCORE
South San Francisco Unified School District
398 "B" Street
South San Francisco, CA 94080
(415) 877-8835/588-7455

How Project SCORE complements and supplements Special Education Master Plan programs:

The major goal of Special Education Master Plan is to provide education appropriate to the needs of individuals with exceptional needs in a setting which promotes maximum interaction with the general school population. Project SCORE was developed for the purpose of providing tutorial reading instruction for Learning Handicapped pupils in the "Least Restrictive Environment". The program was subsequently validated with ESEA Title IV-C funds with Educationally Handicapped students with clearly identified reading handicaps (diplexia). Recently, the United States Department of Education Joint Dissemination Review Panel (JDRP) certified SCORE as an Exemplary Program for the learning handicapped.

Project SCORE was designed to address many of the specific reading problems shown by handicapped pupils. These include special word patterning and a marker to reduce reversal errors, highly structured and defined lessons to improve the attention span of hyperactive pupils, programmed high success rate (90-95%) to benefit pupils with self-esteem diminished by high failure rates, built-in lesson branching procedures to adjust for individual differences in ability and background experience, and special blending exercises for handicapped pupils who have difficulty learning phonetically. Also, SCORE provides a built-in motivation system to provide needed incentives for handicapped pupils who lost their motivation to perform to their optimal levels.

1980-81 TITLE IV-C SCORE ADOPTIONS

#	District	Contact Person	Phone #	# of Sites	# of Pupils	Type of* Pupils	# of Tutors	Type of** Tutors
1	Healdsburg USD	Barbara Rubins	(707) 527-2534	3	50-110	Gr. K-8 B,D,R	10-20	S,V,A
2	Office of the Supt. Napa County Schools	Marilyn Kopmann	(707) 252-5266	County-Wide SE	200	Gr. 1-12 SE	60	S,V,A
3	Rescue Union SD	Gary L. Brockett	(916) 677-4461	2	80	Gr. 1-8 R,SE	25	S,V,A
4	Oakhurst Union Elem. SD	Clint Bletscher	(209) 683-4676	1	50+	Gr. 1-5 R	65	S,V,A
5	Madera USD	Jean Upton	(209) Ex 673-9151,28	1	125	Gr. 9-12 SE,D	20	S
6	Lost Hills USD	James P. Roberts	(805) 797-2632	1	130	Gr. K-8 R	40	S,V
7	Orcutt Union SD	Marilyn R. Jeffrey	(805) 937-4416	1	120	Gr. 1-6 D	15	V,A,S
8	Lodi USD	Norma Jean Gates	(209) Ex 369-7411 277		210	Gr. 1-12 SE	75	S
9	San Jose USD	Karen Hanson	(408) 998-6034	District Wide SE	605	Gr. K-12 SE	54	S,A
10	Evergreen Elem. SD	Karen Eller	(408) Ex 274-2520 68	3	150	Gr. 2-8 D,R	35	S,A
11	Alisal SD	Patricia Lomanto Dr. Lynn Eden	(408) 757-6773	1	125-260	Gr. 2-6 D	28	V,S
12	San Benito Co. Office of Ed.	Louise Walsingham Lynette Boisvert	(408) 637-4450	8	80	Gr. 1-6 SE	40	
13	West Covina USD	Mrs. Barbara La Moure	(213) 338-8411	6	212	Gr. 7-12 SE	80	V,S
14	Saddleback Valley USD	Dr. Robert R. Ford	(714) 586-1234	2	327	Gr. K-6 R	80	S,V
15	Poway USD	Jack E. Sharpe	(714) Ex 748-0010 76	District Wide	840	Gr. k-12 SE,R	125	S
16	Walnut Valley USD	Walter B. Nash	(714) 595-1261	1	142	Gr. 1-5 R	30	V,S

* Special Ed. (SE) Disadvantaged (D) Bilingual (B) Regular (R)

** Student (S) Volunteer (V) Aides (A)

1979-80 TITLE IV-C SCORE ADOPTIONS

#	District	Contact Person	Phone #	# of Sites	# of Pupils	Type of* Pupils	# of Tutors	Type of** Tutors
1	Sonoma Valley USD	Bob Guertz	(707) 938-8545	7	280	Gr. 1-8 D,SE,R	70	S,V,A
2	Foresthill Union Elem. SD	Carol Y. Mohler	(916) 367-2211	1	15-25	Gr. 6-8 R,D	5	S
3	Redwood City SD	Kenneth G. Woody Robert Costa	(415) Ex 365-1550 41	District Wide	350	Gr. 1-9 R,SE,B,D	40	A,V,S
4	Morgan Hill USD	Bill R. Forester	(408) 779-8391	2	144	Gr. 1-6 R	20	S,V,A
5	Monterey Peninsula USD	Richard Morriss Lloyd Reist	(408) 649-7261	2	120	Gr. 1-5 SE,R	30	S,V,A
6	Santa Maria SD	Leslie D. Cox	(805) Ex 928-1783 207	3	152	Gr. 1-9 SE,B,R	32	S,A
7	Gilroy USD	Sue Bruemmer Patricia Matulich	(408) 842-8234 (408) 842-8292	2	120	Gr. 3-6 SE,R,B,D	30	S,V,A
8	Laguna Salada Union SD	Karen R. Walls	(415) 355-3730	1	80	Gr. 1-6 SE,B,R,D	20	S,A,V
9	Liberty Union High SD	Fred Valverde Thaddeus A. Ferenc	(415) 634-4652 (415) 634-2166	1	60	Gr. 9-12 SE, R	20	S,A
10	Irvine USD	Marilou Lundberg Tom Angell	(714) 549-8816	4	62	Gr. 1-6 B,R,SE	40	S,V,A
11	Los Angeles USD	Soraya Newell Myra Morewitz	(213) 971-4361	1	311	Gr. 7-9 SE,R,B	86	S,A
12	Capistrano USD	Pat Griggs	(714) 496-5942	1	50	Gr. K-5 R	30	A,V,S
13								
14								
15								
16								

* Special Ed. (SE) Disadvantaged (D)
Bilingual (B) Regular (R)

** Student (S)
Volunteer (V)
Aides (A)